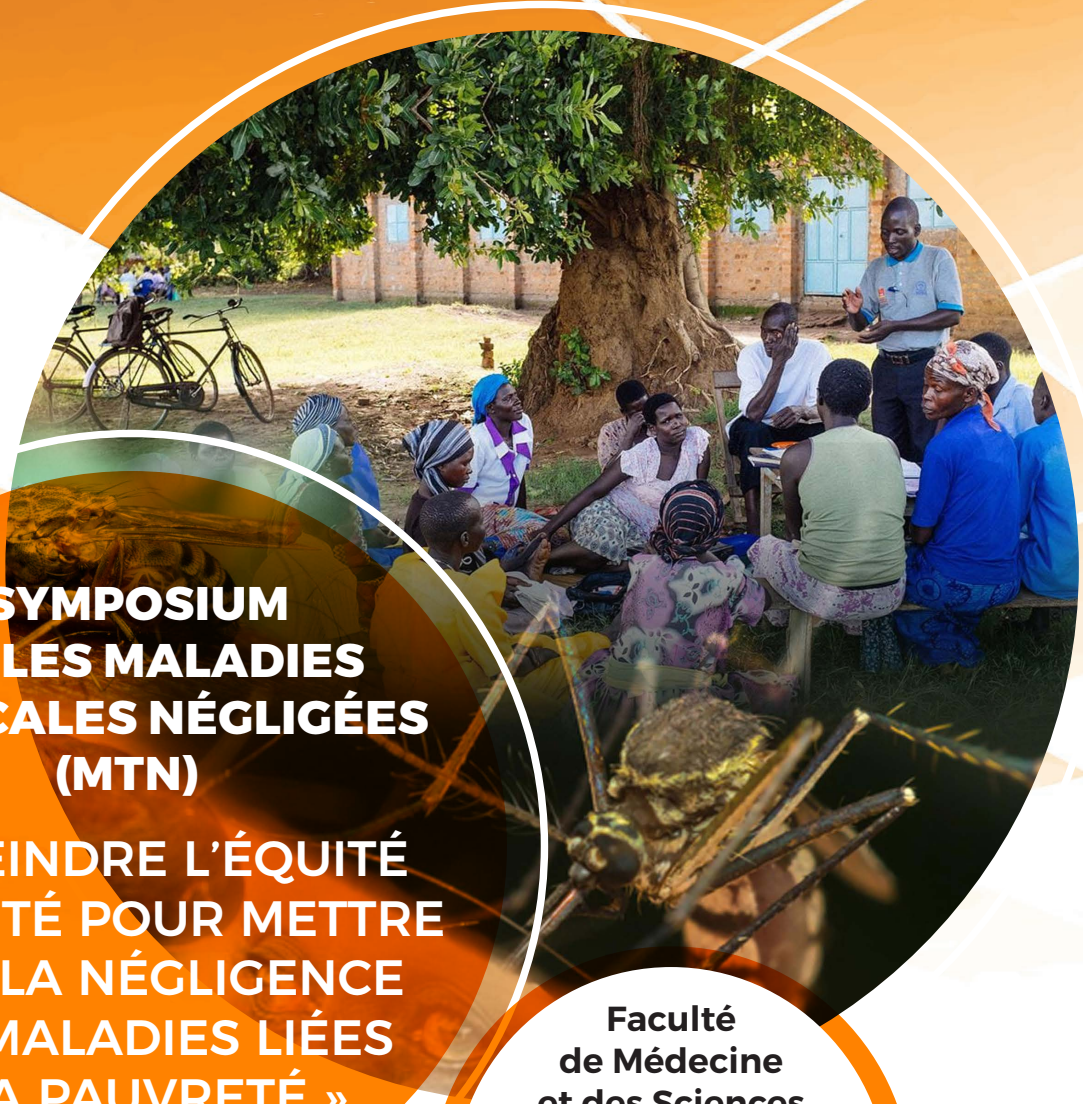
MINSANTE
Ministère de la Santé Publique

30 janvier 2022
JOURNÉE MONDIALE DES MTN
LES MALADIES TROPICALES NÉGLIGÉES



SYMPOSIUM SUR LES MALADIES TROPICALES NÉGLIGÉES (MTN)

« ATTEINDRE L'ÉQUITÉ EN SANTÉ POUR METTRE FIN À LA NÉGLIGENCE DES MALADIES LIÉES À LA PAUVRETÉ »

Faculté de Médecine et des Sciences Biomédicales (FMSB)
Université de Yaoundé I

AMPHI 100

20 ET 21 AVRIL 2022

LIVRE DES RÉSUMÉS

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USAID · Act to End NTDs · fhi360 · Helen Keller Intl · OCEAC · CRFIIMT · Organisation mondiale de la Santé · Sightsavers · Good Neighbors Cameroon · International Eye Foundation · PersPective · Fair Med

REPUBLIQUE DU CAMEROUN
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MINISTERE DE LA SANTE PUBLIQUE

SECRETARIAT GENERAL

DIRECTION DE LA LUTTE CONTRE LA MALADIE, LES EPIDEMIES ET LA PANDEMIE

SOUS-DIRECTION EN CHARGE DE LA LUTTE CONTRE LE PALUDISME ET LES MALADIES TROPICALES NEGLIGEES

REPUBLIC OF CAMEROON
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MINISTRY OF PUBLIC HEALTH

SECRETARIAT GENERAL

DEPARTMENT OF DISEASES CONTROL, EPIDEMICS AND PANDEMICS

SUB-DEPARTMENT IN CHARGE OF MALARIA AND TROPICAL NEGLETED DISEASES

INFORMATIONS GÉNÉRALES

Sous l'égide du Ministère de la Santé Publique du Cameroun, l'Unité de Coordination de la Lutte contre les Maladies Tropicales Négligées annonce la tenue d'un symposium scientifique sur le thème : **« Atteindre l'équité en santé pour mettre fin à la négligence des maladies liées à la pauvreté » les 20 et 21 avril 2022 à l'Amphi 100 de la Faculté de Médecine et des Sciences Biomédicales (FMSB) de l'Université de Yaoundé I.**

Cette manifestation scientifique a pour principal objectif de contribuer à la sensibilisation et à la mobilisation autour des Maladies Tropicales Négligées, et ambitionne de favoriser la rencontre et les échanges entre les chercheurs, les acteurs de la mise en œuvre, les décideurs, les bailleurs de fonds, les organisations non gouvernementales, la société civile ainsi que les étudiants.

Ce symposium durera deux jours et comportera trois sessions scientifiques (**Session #1 :** Résilience de la lutte contre les MTN face aux défis de la COVID-19 ; **Session #2 :** Intégration de la lutte contre les MTN : enjeux et défis ; **Session #3 :** Moyens innovants et stratégies alternatives de lutte contre les maladies tropicales négligées) et une session de concertation et de débat (**Thème Table Ronde :** Etat des lieux de la lutte contre les MTN au Cameroun) entre l'Unité de Coordination des Maladies Tropicales Négligées, les programmes nationaux de lutte contre les maladies tropicales négligées, les partenaires du MINSANTE engagés dans la lutte contre les MTN (Organisation Mondiale de la Santé, Organisations non Gouvernementales pour le Développement (ONGDs), les bailleurs de fonds et la société civile. Les sessions scientifiques vont s'articuler autour de séances plénières par des spécialistes de ces maladies tropicales négligées, et de communications orales et affichées. Nous encourageons vivement les étudiants et jeunes chercheurs à présenter leurs travaux récents à la communauté scientifique.

INFORMATIONS PRATIQUES

Ce symposium bénéficie du soutien financier du Ministère de la Santé Publique et de l'Organisation Non Gouvernementale pour le Développement (ONGD) Helen Keller International. **L'inscription à ce symposium est gratuite mais obligatoire. Les inscriptions seront closes le 3 avril 2022 ;** veuillez suivre le lien ci-dessous pour vous inscrire et soumettre votre résumé, en précisant la session à laquelle votre communication se rapporte, et en indiquant si vous souhaitez faire une présentation orale ou une communication affichée (Poster). Un programme détaillé de l'événement sera rendu disponible le **15 avril 2022**.

COMITÉ D'ORGANISATION

Prof Emilienne EPEE (Faculté de Médecine et des Sciences Biomédicales de l'Université de Yaoundé I / Unité de Coordination des Maladies Tropicales Négligées, Ministère de la Santé Publique (MINSANTE)), **Dr Alphonse UM BOOCK** (Université Catholique d'Afrique Centrale, UCAC), **Dr Hugues C. NANA DJEUNGA** (Centre de Recherche sur les Filarioses et autres Maladies Tropicales, CRFilMT), **M. Patrick MBIA** (Helen Keller International), **Dr Fai Karl G. N.** (Médecins Sans Frontières (MSF) / Epicentre).

COORDINATION GÉNÉRALE

Dr Alain G. ETOUNDI MBALLA (Directeur de la Lutte contre la Maladie, les Epidémies et les Pandémies (DLMEP) du MINSANTE, Cameroun) et **Dr Georges B. NKO'AYISSI** (Coordonnateur des Programmes MTN, DLMEP, MINSANTE, Cameroun), **Dr Ismael TETA** (Directeur Pays , Helen Keller International).

Lien pour l'inscription

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REPUBLIQUE DU CAMEROUN
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GENERAL INFORMATION

Under the auspices of the Ministry of Public Health of Cameroon, the Coordination Unit for the Fight against Neglected Tropical Diseases is pleased to announce a scientific symposium on the theme : **« Achieving health equity to end the neglect of poverty-related diseases» that will be held on April 20-21, 2022 at the Amphi 100 of the Faculty of Medicine and Biomedical Sciences (FMSB) of the University of Yaoundé I**.

The main objective of this scientific event is to contribute to raise awareness on, and mobilize stakeholders involved in the fight against Neglected Tropical Diseases. This event will offer a suitable platform for discussions and exchanges between researchers, implementation actors, decision-makers, donors, non-governmental organizations, civil society and students.

This symposium will last two days and will include three scientific sessions (**Session #1 :** Resilience of NTDs control in the context of COVID-19 ; **Session #2 :** Challenges of the integration of NTDs control ; **Session #3 :** Innovative and alternative strategies to control NTDs) and a debate session (**Theme of the Roundtable :** Status of the fight against NTDs in Cameroon) between the Coordination Unit of Neglected Tropical Diseases, national programs for the control of neglected tropical diseases, MoH partners involved in the fight against NTDs (World Health Organization, Non-Governmental Organizations for Development (NGDOs), donors and civil society). The scientific sessions will be structured around plenary sessions by specialists of these different neglected tropical diseases, as well as oral and poster presentations. We strongly encourage students and early career research scientists to take this opportunity to disseminate their recent research near the scientific community.

PRACTICAL INFORMATION

This symposium benefits from the financial support of the Ministry of Public Health and the Non-Governmental Organization for Development (NGDO) Helen Keller International. **Registration for this symposium is free of charge but compulsory. Registrations will close on April 3, 2022 ;** please follow the link below to register and submit your abstract, specifying the session to which your communication relates, and indicating whether you wish to make an oral or a poster presentation. A detailed program of the event will be made available on **April 15, 2022**.

ORGANIZING COMMITTEE

Prof. Emilienne EPEE (Faculty of Medicine and Biomedical Sciences of the University of Yaoundé I/ Coordination Unit of Neglected Tropical Diseases, Ministry of Public Health), **Dr. Alphonse UM BOOCK** (Catholic University of Central Africa, CUCA), **Dr Hugues C. NANA DJEUNGA** (Centre for Research on Filariasis and other Tropical Diseases, CRFilMT), **Mr. Patrick MBIA** (Helen Keller International), **Dr Fai Karl G. N.** (Doctors Without Borders (DWB) / Epicentre).

GENERAL COORDINATION

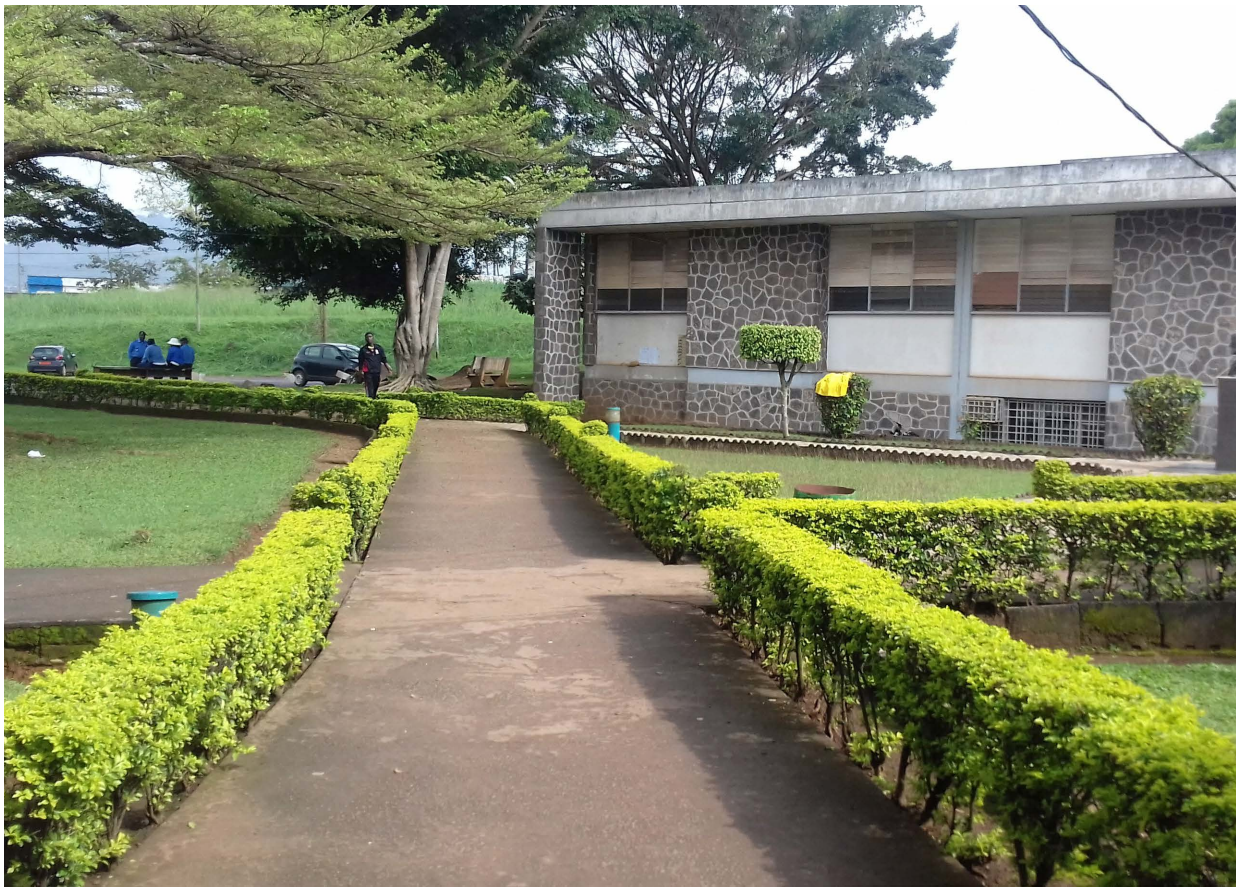
Dr. Alain G. ETOUNDI MBALLA (Head of the Department of Diseases Control, Epidemics and Pandemics et the Ministry of Public Health, Cameroon) and **Dr. Georges B. NKO'AYISSI** (Coordinator of NTD Programs at the Department of Diseases Control, Epidemics and Pandemics, Ministry of Public Health, Cameroon), **Dr Ismael TETA** (Country Director, Helen Keller International).

Link for registration

https://docs.google.com/forms/d/e/1FAIpQLSdiZtGs8es6P5W4B0c_RPWKMrWAucu3EwmWjEPzUdznC7OEzw/viewform

SOMMAIRE

LE SITE DU SYMPOSIUM



Le Symposium **« Atteindre l'équité en santé pour mettre fin à la négligence des maladies liées à la pauvreté »** se tiendra à l'Université de Yaoundé I, établissement public, scientifique et culturel placé sous la tutelle du Ministère chargé de l'Enseignement Supérieur.

Crée par Décret N° 93/036 du 29 janvier 1993, l'Université de Yaoundé I est organisée en neuf facultés et grandes écoles, dont la Faculté de Médecine et des Sciences Biomédicales (FMSB) qui va accueillir les travaux dudit symposium.

La Faculté de Médecine et des Sciences Biomédicales a pour mission la formation de personnels de santé de haut niveau, adaptés au contexte national et international.

En plus de la formation de médecins généralistes, la Faculté de Médecine et des Sciences Biomédicales forme également plusieurs autres professionnels de la santé, notamment des médecins spécialistes, des pharmaciens, des chirurgiens-dentistes, des techniciens biomédicaux et médico-sanitaires.

Il s'agit donc d'un cadre idoine de débats d'idées autour des maladies tropicales négligées.

LE COMITÉ D'ORGANISATION

Coordination Générale :

Dr Alain G. ETOUNDI MBALLA
Directeur de la Lutte contre la Maladie,
les Epidémies et les Pandémies (DLMEP)
du MINSANTE, Cameroun
Head of the Department of Diseases Control, Epidemics and Pandemics et the Ministry of Public Health, Cameroon

Dr Georges B. NKO'AYISSI
Coordonnateur des Programmes MTN, DLMEP,
MINSANTE, Cameroun
Coordinator of NTD Programs at the Department of Diseases Control, Epidemics and Pandemics, Ministry of Public Health, Cameroon

Dr Ismael TETA
Country Director, Helen Keller International

Président :

Prof Emilienne EPEE
Faculté de Médecine et des Sciences Biomédicales
de l'Université de Yaoundé I
Unité de Coordination des Maladies Tropicales Négligées,
Ministère de la Santé Publique (MINSANTE)

Secrétaire Général :

Dr Hugues C. NANA DJEUNGA
Centre de Recherche sur les Filarioses
et autres Maladies Tropicales (CRFilMT)

Membres :

Dr Alphonse UM BOOCK
Université Catholique d'Afrique Centrale (UCAC)

Dr Fai Karl G. N.
Médecins Sans Frontières (MSF) / Epicentre

M. Patrick MBIA
Helen Keller International

MOT DU COMITÉ D'ORGANISATION

Prof Emilienne **EPEE**
Président du Comité d'Organisation

Madame le Doyen de la Faculté de Médecine et des Sciences Biomédicales ;
Monsieur le Représentant de l'OMS au Cameroun ;
Mesdames et Messieurs les Représentants des organismes Internationaux ;
Monsieur le Sous-Directeur de la lutte contre le paludisme et les maladies tropicales négligées.
Chers Chefs de programmes de lutte contre les maladies tropicales négligées;
Chers Enseignants en vos grades et rangs respectifs;
Chers doctorants et étudiants ;
Distingués invités, Mesdames et Messieurs ;

C'est pour moi un plaisir particulier de prendre la parole aujourd'hui à l'occasion de l'ouverture des travaux du tout premier Symposium sur les Maladies Tropicales Négligées au Cameroun. Les Maladies Tropicales Négligées (MTNs) sont un groupe de 20 maladies touchant pour la plupart les populations pauvres et déshérités vivant dans les zones tropicales, y compris le Cameroun où sévissent toutes ces maladies. Toutes les régions et les districts de santé du Cameroun sont concernés abritant au moins une des maladies tropicales négligées.

Mesdames et Messieurs ;
Ce symposium s'inscrit dans la continuité de la célébration de la journée internationale des maladies tropicales négligées qui a lieu le 30 janvier de chaque année depuis près de 3ans, et dont nous avons célébré la 3e édition cette année. Cette journée vise à attirer l'attention sur ces maladies négligées, afin de relancer les efforts pour mettre fin aux souffrances causées par celles-ci. Le thème de cette troisième journée internationale des maladies tropicales négligées, qui est d'ailleurs le thème du symposium est **« Atteindre l'équité en santé pour mettre fin à la négligence des maladies liées à la pauvreté »**. Ce thème très évocateur et tranversal nous interpelle tous.

MOT DU COMITE D'ORGANISATION

Mesdames et messieurs ;
Le Cameroun a mis en place plusieurs programmes pour faire face à ces maladies tropicales négligées. Vous aurez l'occasion, au cours des différentes sessions de ces assises, d'apprécier les efforts de ces programmes, ainsi que les défis auxquels ils font face.

Ces programmes sont accompagnés dans la mise en œuvre de leurs activités par plusieurs partenaires de lutte, partenaires financiers et techniques, qui auront également l'opportunité de présenter leur contribution à la lutte contre les maladies tropicales négligées au Cameroun. J'aimerai profiter de cette opportunité pour leur exprimer, par ma modeste voix, les sincères remerciements du gouvernement du Cameroun. Profonde gratitude nous avons encore besoin de soutien surtout dans la phase d'élimination et les challenges de la feuille de route de l'OMS 2021- 2030 concernant les maladies tropicales négligées.

Honorables invités
Il n'échappe à personne que la recherche en santé constitue un levier important et un vecteur de développement. Les résultats de recherches menées au Cameroun et dans le monde entier ont permis des avancées significatives dans la mise au point des stratégies de lutte contre les maladies tropicales négligées, dont certains seront présentés et discutés lors de ce symposium.

Mesdames, messieurs
Dans l'espoir que la réflexion qui sera menée au cours des présentes assises aboutira à des solutions toujours plus opérationnelles qui bénéficieront aux différents programmes de lutte et aux populations affectées, je formule par ailleurs, le vœu ardent qu'elle connaisse un franc succès.

BIENVENUE au premier symposium sur les Maladies Tropicales Négligées au Cameroun au nom de toute l'équipe, qui a travaillé d'arrache-pied pour que cette réflexion scientifique ait lieu.

Vive la coopération scientifique internationale !
Vive le Cameroun et Son Illustre Chef de l'Etat, Son Excellence Monsieur Paul Biya !

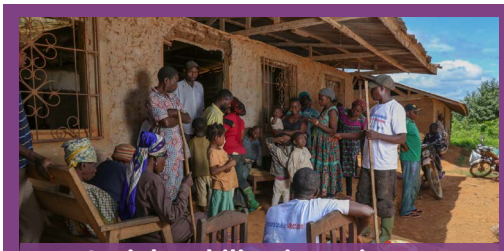
Je vous remercie de votre aimable attention.

HELEN KELLER INTL

ABOUT NEGLECTED TROPICAL DISEASES (NTDs)

Neglected tropical diseases (NTDs) threatens more than 1.7 billion people living in the world's poorest and most marginalized communities. These diseases blind, disable and disfigure people, robbing them not only of their health, but also of their chances to go to school, earn a living or even be accepted by their families or communities.

Since 2012, 33 countries have eliminated at least one NTD.



Social mobilization prior to onchocerciasis MDA

Today, we are reaching more people with treatment for NTDs than ever before. In Cameroon, Helen Keller Intl is a long-lasting partner of the Ministry of Public Health (MoH) in the fight against NTDs. The organization is currently the country implementing partner of the Act/West Program. This grant which is received through FHI360 is aiming at supporting NTDs endemic countries with the goal of eliminating and/or controlling these diseases, through proven and cost-effective public health interventions. Act/West interventions are focusing on onchocerciasis, trachoma and lymphatic filariasis which covers the 10 regions of the country.

Drug distributor discussing with a community member

Act to End NTDs WEST

USAID's Act to End NTDs |West program support the elimination of seven Neglected Tropical Diseases (NTDs) in Benin, Burkina Faso, Cameroon, Ghana, Guinea, Cote d'Ivoire, Mali, Niger, Senegal, Sierra Leone and Togo. The program sets to build upon the achievements of USAID's END in Africa and ENVISION projects in West Africa, continuing efforts to eliminate lymphatic filariasis, trachoma and (in selected countries) onchocerciasis as public health problems. It also aims to strengthen national NTD program capacity to sustain treatment for long-term control of schistosomiasis, onchocerciasis, and three types of soil-transmitted helminthiasis (caused by hookworms, roundworms and whipworms), and to mainstream NTD programs into national health systems.

In Cameroon, Act| West runs from 2018 to 2023 building on the achievements of the ENVISION project in the continuous efforts to eliminate onchocerciasis through Mass Drug Administration (MDA), as well as Trachoma and lymphatic filariasis through assessment surveys. The program is implemented in the 10 regions of the country with the technical support of Helen Keller and national partner NGOs: Sightsavers and Perspectives.

PROGRAMME SCIENTIFIQUE

JOUR 1 (MERCREDI 20 AVRIL 2022)

Heure	Thème	Responsable
Cérémonie d'ouverture		
08h00-09h00	Accueil et installation des invités et participants	Protocole
09h00-09h10	Discours de bienvenue	Prof Emilienne EPEE, Présidente du Comité d'Organisation
09h10-09h20	Discours Liminaire	Prof Jacqueline ZE MINKANDE, Doyen FMSB, UY I
09h20-09h30	Discours Liminaire sur le concept des MTN	Dr Phanuel HABIMANA, Représentant OMS - Cameroun
09h30-09h40	Discours Liminaire et ouverture du Symposium	MINSANTE (SG / DLMEP / SDLPMTN / DROS)
09h40-10h00	Présentation de la feuille de route 2021-2030 de l'OMS pour les Maladies Tropicales Négligées	Dr Etienne NNOMZO'O, Responsable MTN, OMS-Cameroun
10h00-11h00	Photo de groupe, Interviews, visite libre de stands et Posters, Pause-café	
Concertation Programmes et Partenaires de Lutte MTN (Modérateurs : Dr Georges NKO'AYISSI et Dr Etienne NNOMZO'O)		
11h00-12h30	Table Ronde 1. Etat des lieux et priorités des Programmes de Lutte contre les Maladies Tropicales Négligées au Cameroun	Unité de Coordination MTN et Secrétaires Permanents des Programmes Nationaux de Lutte
12h30-13h30	Table Ronde 2. Contribution des partenaires et autres parties prenantes à la lutte contre les Maladies Tropicales Négligées au Cameroun	Partenaires Groupe 1 (Helen Keller Intl., IEF, PersPective, Sightsavers, Good Neighbors, FAIRMED)
13h30-14h30	Pause-déjeuner et Visite libre de Stands et Posters	
14h30-15h30	Table Ronde 3. Contribution des partenaires et autres parties prenantes à la lutte contre les Maladies Tropicales Négligées au Cameroun	Partenaires Groupe 2 (USAID, GLIDE, OCEAC, OMS, MSF/Epicentre, CRFilMT)
Session Scientifique #1 : Résilience de la lutte contre les MTN face aux défis de la COVID 19 (Modérateurs : Prof Emilienne EPEE et Dr Hugues NANA DJEUNGA)		
15h30-15h40	La Résilience de l'Hôpital de District d'Akonolinga face aux Vulnérabilités de Prise en charge du COVID 19 et des Maladies Tropicales Négligées (MTN)	Dr Marie Emma NDJIBA, Université de Yaoundé I, Cameroun
15h40-15h50	One year of discontinuation of ivermectin-based chemoprevention had no short-term impact on onchocerciasis transmission unlike predictions of mathematical models	M. Arnauld EFON EKANGOUO, CRFilMT, Cameroun
15h50-16h00	Impact of the COVID-19 pandemic on the implementation of onchocerciasis control program in Cameroon: preparedness and lessons for next pandemics?	M. Dimitrice WABO FOSSOUO, CRFilMT, Cameroun
16h00-16h30	Discussions Générales	Tous les Présentateurs et Participants
16h00-17h00	**Fin de la journée (Visite libre de Stands et Posters)**	

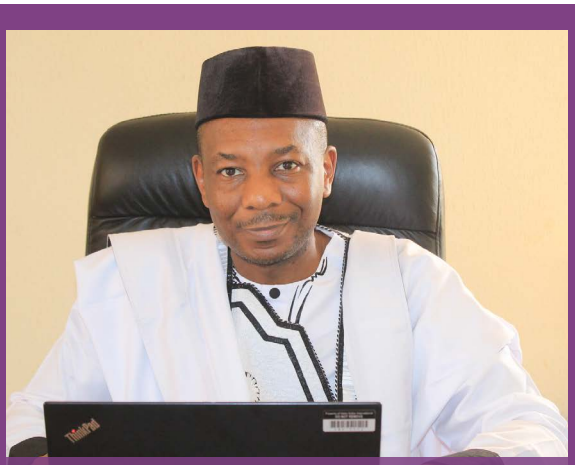
PROGRAMME

JOUR 2 (JEUDI 21 AVRIL 2022)

Heure	Thème	Responsable
08h00-09h00	Arrivée et installation des invités et participants	Protocole
Session Scientifique #2 : Intégration de la lutte contre les MTN : enjeux et défis (Modérateurs : Prof YAP BOUM II et Dr Alphonse UM BOOCK)		
09h00-09h30	Leçon Inaugurale (et discussions) : Enjeux de l'intégration de la lutte contre les MTN au Cameroun	Prof YAP BOUM II, MSF/Epicentre, Cameroun
09h30-09h40	Integration of Traditional Healers in the Management of Neglected Tropical Diseases: Case of Snakebites and Buruli Ulcer	MSF / Epicentre, Cameroun
09h40-09h50	L'approche multisectorielle face à la lutte contre la dracunculose au Tchad	Dr Jacob MBAIHONDOUM, Université de Yaoundé I, Cameroun
09h50-10h00	Low endemicity but still prevailing risk of transmission of Soil Transmitted Helminthiasis in the Mifi Health District (West Region, Cameroon): is one health approach needed?	Dr Laurentine SUMO, Université de Bamenda, Cameroun
10h00-10h10	Collateral impact of ivermectin mass administration on the level of endemicity of soil-transmitted helminths, loiasis and scabies: evidence of the need for integrated control strategies	Mme Linda DJUNE YEMELI, CRFilMT, Cameroun
10h-10-10h30	Discussions Générales	Tous les Présentateurs et Participants
10h30-11h00	**Pause-Café**	
11h00-11h10	Unexpected high prevalence of Soil-Transmitted Helminthiases in the Ayos Health District (Centre Region, Cameroon) one month after deworming campaign: implications for elimination	Mme Loirette SIMO SIMO, CRFilMT, Cameroun
11h10-11h20	Épidémiologie de la lèpre au Tchad de 2015 à 2019	M. Abakar KIRGA KABO, UCAC, Cameroun
11h20-11h30	Trypanosomiasis risk is present and HAT transmission is possible in Douala and its surroundings, Littoral-Cameroon	Dr Gael ATANGANA BITA, UYI, Cameroun
11h30-11h40	Prevalence of trypanosomiasis in small ruminants, dogs and pigs in three sleeping sickness foci in south of Chad	Dr Joël VOURCHAKBÉ, Université de Dschang, Cameroun
11h40 -12h00	Discussions Générales	Tous les Présentateurs et Participants
12h00-13h00	Pause-Déjeuner avec Visite Libre de Stands et Posters	
Session Scientifique #3 : Moyens innovants et stratégies alternatives de lutte contre les MTN (Modérateurs : Prof Joseph KAMGNO et Dr Julienne EKODI)		
13h00-13h30	Leçon Inaugurale (et discussions) : Stratégies Innovantes et Alternatives de lutte contre les Maladies Tropicales Négligées	Prof Joseph KAMGNO, FMSB, UY I, Cameroun
13h30-13h40	Perception et préférence de l'utilisateur final pour les formulations orales de la Moxidectine pédiatrique	Dr Guy WAFEU SADEU, CRFilMT, Cameroun
13h40-13h50	Environment friendly vector control (Slash and clear) to accelerate onchocerciasis elimination in a high transmission area: a pilot study in the Mbam valley (Centre Region, Cameroon)	M. André DOMCHE, CRFilMT, Cameroun
13h50-14h00	Blackfly population dynamics in support of a novel vector control approach in the Eseka health district	Mme Joelle TANGUEP SIAKAM, CRFilMT, Cameroun

Heure	Thème	Responsable
14h00-14h10	Impact of deltamethrin impregnated screens on tsetse fly population densities and trypanosomes circulation in Campo sleeping sickness focus, Southern Cameroon	Dr Tito Trésor MELACHIO TANEKOU, CRID, Cameroon
14h10-14h20	The who, what, where and why of GLIDE	Dr. Aïssatou DIAWARA, GLIDE, Abu Dhabi, UAE
14h20-14h40	Discussions Générales	Tous les Présentateurs et Participants
Cérémonie de clôture		
14h40-14h45	Lecture des recommandations du Symposium	Secrétariat Symposium
14h45-15h00	Discours de fin du Symposium	Prof Emilienne EPEE, Présidente du Comité d'Organisation
17h50-18h00	Discours de clôture du Symposium	MINSANTE (SG / DLMEP / SDLPMTN / DROS)
18h00	**Fin du Symposium avec Visite Libre de Stands et Posters**	

ABOUT HELEN KELLER INTL

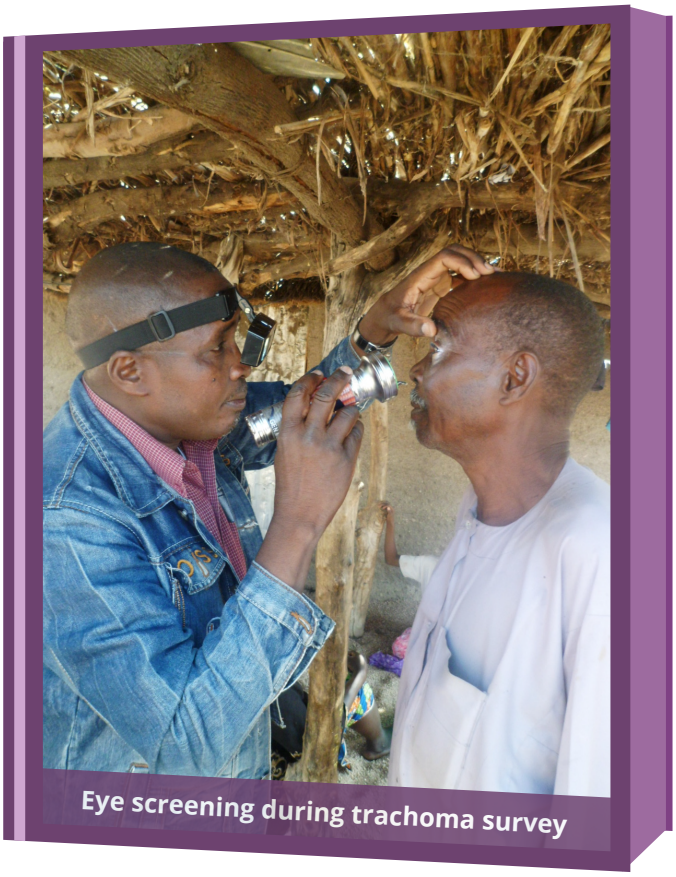


Helen Keller International Cameroon Country Director

Founded in 1915 by Helen Keller and George Kessler, Helen Keller International is an International Non-Governmental Organization whose mission is to save the sight and lives of the most vulnerable and disadvantaged populations. It fights the causes and consequences of preventable blindness and malnutrition by building evidence-based programs and research around vision, health and nutrition. Helen Keller intervenes in 20 countries in Africa, Asia, Europe including the United States of America. These interventions can be grouped under four programs namely: Eye Health, Neglected Tropical Diseases (NTDs), Nutrition/Vitamin A Supplementation, and Childsight®.

CAMEROON COUNTRY OFFICE

In Cameroon since 1992, Helen Keller International strengthens the capacities of government, civil society and the private sector. It promotes the development of medium and large-scale preventive and curative programs that provide considerable support to the effectiveness of eye health and the fight against malnutrition in Cameroon. These services are integrated into ongoing programs and initiatives, and are delivered in cost-effective and practical ways that consider real health needs and local realities. Over the years, the mission of Helen Keller in Cameroon has centered around two main programs: the fight against Neglected Tropical Diseases (NTDs), and Nutrition/Vitamin A Supplementation which both have a nationwide coverage and are part of the Cameroon government's health priorities. Their programs are firmly grounded in scientific evidence. To carry out its activities, Helen Keller is present in the 10 regions of Cameroon, with staffs in 8 regions. Helen Keller International is presently the country implementing partner of the Act to End Neglected Tropical Diseases (NTDs) | West program which is a **USAID-funded program with FHI360 as the prime organization.**



Eye screening during trachoma survey

ORAL COMMUNICATIONS ORALES

SESSION 1
RÉSILIENCE DE LA LUTTE CONTRE LES MTNS FACE AUX DÉFIS DE LA COVID-19 / RESILIENCE OF NTDS CONTROL IN THE CONTEXT OF COVID-19

SYMPO1.
LA RÉSILIENCE DE L'HÔPITAL DE DISTRICT D'AKONOLINGA FACE AUX VULNÉRABILITÉS DE PRISE EN CHARGE DU COVID 19 ET DES MALADIES TROPICALES NÉGLIGÉES (MTN)

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La vulnérabilité des hôpitaux du Cameroun, particulièrement les hôpitaux des zones rurales, face à la prise en charge du COVID-19 et des Maladies Tropicales Négligées (MTN), est une problématique de recherche qui est d'actualité. Cette problématique prend tout son sens en ces moments de crise sanitaire mondiale où le Cameroun, comme tous les autres pays du monde, mène une lutte acharnée contre la pandémie du COVID-19. Dans ce contexte particulier où le système de santé est très fragile, où les Ressources Humaines et leurs capacités sont insuffisantes, où les plateaux techniques sont dépassés ou parfois Presque inexistants, l'expression « résilience » prend tout son sens dans des hôpitaux des zones rurales. L'hôpital d'arrondissement d'Akonolinga qui a cette particularité d'être, à la fois, un centre hospitalier ordinaire ; mais aussi, un centre de prise en charge des Maladies Tropicales Négligées. Ce double défi met son personnel et les malades atteints de certaines maladies, telles que la tuberculose et l'Ulcère de Buruli, dans une situation de vulnérabilité multiforme. Dans ce sens, l'hôpital, au lieu de rester un cadre sécuritaire de prise en charge, d'assistance et de service, se transforme plutôt en un espace de conflit, d'anxiété, d'exposition à la maladie ; bref, d'insécurité. Les acteurs y font face à des pressions énormes engendrées par la masse de travail ; mais aussi, à la fragilité humaine. En mobilisant les données qualitatives de terrain et les approches de la sociologie de la santé et de l'interaction, le présent article décrypte et présente les vulnérabilités plurielles qui rendent complexe la prise en charge des MTN en période de la pandémie du COVID-19. Ces vulnérabilités, à la fois physiques, psychologiques et matérielles, compromettent les fonctions thérapeutiques d'encadrement destinées à cette structure hospitalière.

Mots clés : Résilience, hôpital de district d'Akonolinga, vulnérabilités de prise en charge, covid-19, maladies tropicales négligées.

SYMPO2.
ONE YEAR OF DISCONTINUATION OF IVERMECTIN-BASED CHEMOPREVENTION HAD NO SHORT-TERM IMPACT ON ONCHOCERCIASIS TRANSMISSION UNLIKE PREDICTIONS OF MATHEMATICAL MODELS

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Background and justification : The control of onchocerciasis essentially relies currently on mass drug administration (MDA), implemented in endemic areas through an annual regimen of single dose ivermectin (150µg/kg bodyweight). Because of the reduced adulticidal activity of ivermectin, MDA should be repeated continuously for at least 15 years. Mathematical models predicted an increase in the prevalence and intensity of Onchocerca volvulus infection following a short-term disruption of MDA as part of COVID-19 mitigation measures, and recommended corrective measures such as biannual MDA to mitigate the impact of COVID-19 on onchocerciasis elimination. However, field evidence regarding this prediction is yet to be gathered, and will be useful to validate the models. This study aimed to assess the impact of a year and half MDA disruption on onchocerciasis transmission indicators.

Methods: A cross-sectional survey was carried out in Bafia and Ndikinimeki, two health districts located in the Centre Region, Cameroon, where MDA have been ongoing for two decades, but interrupted in 2020 as a response to the COVID-19 pandemic. Volunteers aged 5 years and above were enrolled for clinical and parasitological examination for onchocerciasis.

Results: A total of 504 volunteers (50.29% males), aged 05-99 years old (Median: 38; IQR: 15 – 54), distributed were skin snipped in seven villages of the targeted health districts. Microfilaridermia prevalence was higher in the Bafia health district (13.26%; 95% IC: 9.51–17.81) compared to Ndikinimeki health district (21.42%; 95% IC: 11.6 – 34.4) (P = 0.006). The comparison of the trends since the last epidemiological evaluations in 2015 (Bafia Health district) and 2019 (Ndikinimeki health district) revealed a significant decrease in prevalence of infection in both health districts (P = 0.001). Community Microfilarial Load (CMFL) dropped from 0.31–1.62 mf/ss in 2015 to 0.079–0.4 mf/ss in 2021 in the Bafia health district while remaining stable in the Ndikinimeki health district.

Conclusion: The continued decline in prevalence and CMFL observed ~2 years after MDA disruption is inconsistent with the predictions of mathematical models and call into question the need for additional efforts and resources to mitigate the effects of short-term MDA disruption.

SYMPO3.
IMPACT OF THE COVID-19 PANDEMIC ON THE IMPLEMENTATION OF ONCHOCERCIASIS CONTROL PROGRAM IN CAMEROON: PREPAREDNESS AND LESSONS FOR NEXT PANDEMICS ?

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Background: The advent of COVID-19 has brought all the countries of the world to their knees, thus affecting a good number of sectors (the economy, education, health, etc.) of the globe. Faced with this aggressor, whose origin is still debated, the international community, through the WHO, has defined a number of measures to fight this scourge. However, these measures are not without effect on other human activities. It is in this perspective that it seemed obvious to us that the response measures against covid-19 have had impacts on the implementation of onchocerciasis control activities in Cameroon. The objective of our study was to analyze the impacts of the response measures against COVID-19 on the implementation of onchocerciasis control activities by the institutions in charge of control.

Methods: In the framework of our study, the method used is the inductive one, based on the observation of facts and problems. The method consisted in analyzing the impacts of the response measures in order to propose solutions to improve the implementation of the control actions in our context. The theoretical framework adopted in this research is Kurt Lewin's force field model, which is based on two forces influenced by change: a restraining force and a driving force.

Results and conclusion: This study reveals that the response measures against COVID-19 have had the following impact: a reduction in the opportunity costs of the populations benefiting from the fight; a reduction in the workload of the CDDs, as sensitization was carried out by radio broadcastings. However, there has been a significant increase in the initial budget of 10 to 15% allocated to the training of health staff and field agents, the reallocation of staff in charge of onchocerciasis to the fight against covid-19, additional costs estimated at 21,000,000 XAF to provide health staff and field agents with protection kits, low mobilization of financial and technical resources by the institutions in charge of the fight against onchocerciasis. A significant loss of stock of medication, outdated because of the suspension for several months of field activities according to the recommendations of the WHO and the Government in order to limit the spread of COVID-19.

Keywords: COVID-19, Onchocerciasis, impact, Cameroon

SESSION 2
ENJEUX ET DÉFIS DE L'INTÉGRATION DE LA LUTTE CONTRE LES MTNS / CHALLENGES OF THE INTEGRATION OF NTDS CONTROL

SYMPO4.
INTEGRATION OF TRADITIONAL HEALERS IN THE MANAGEMENT OF NEGLECTED TROPICAL DISEASES : CASE OF SNAKEBITES AND BURULI ULCER

EPICENTRE, CAMEROON

Background: Traditional medicine (TM) has been used in Africa before the advent of western medicine. However, there is a scarcity of data on its contribution in the management of NTDs in Africa. Therefore, we aimed to assess the role of TM in the management of Buruli Ulcer (BU) disease and snakebites (SB) in Cameroon.

Methods: We carried a mixed method study in 06 regions of Cameroon endemic for SB and/or BU. We collected information on patient's itinerary prior to hospital management using a semi-structured questionnaire. We also conducted interviews and focus group discussions to assess the knowledge, attitudes, and practices of traditional healers (TH), patients and healthcare workers (HCWs) on BU. R Studio and Nnivo were used to analyze the quantitative and qualitative data respectively.

Results: We found that 289/427 (68%) patients with SB visited traditional healers before arriving the hospital. Amongst them, 220/289 (76%) had signs of envenomation. Among the 289 victims, the median delay between snakebite and patient arrival at the hospital was 14hours (IQR: 7.25-44.1). Moreover, 7/10 (70%) of patients who died during the study had visited a TH. We also found that 82% of suspected BU patients have consulted TH before seeking medical care due to the mystical beliefs about BU and low treatment cost. Most THs reported the importance of combining TM and modern medicine for the management of BU but expressed a feeling of marginalization. However, some HCWs reported lack of trust for TM while others expressed readiness for collaboration with capacity building of TH.

Conclusion: TM is paramount in the management of acute and chronic NTDs. Sustained integration of TH in patient care is needed to improve surveillance, early diagnosis, and adequate management of NTDs in Africa.

Key words: Traditional healers, Neglected Tropical Diseases, Buruli ulcer, Snakebites

ABSTRACTS

SYMPO5.
L'APPROCHE MULTISECTORIELLE FACE À LA LUTTE CONTRE LA DRACUNCULOSE AU TCHAD

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Maladie invalidante, la dracunculose touche essentiellement les populations des zones rurales dépourvues d'eau potable. Elle sévit au Tchad et présente une propension inquiétante. Plus de 30 ans après la création du programme national, le Tchad ne parvient pas à éradiquer la dracunculose à cause de l'implication des animaux dans la chaine de transmission. En 2010, 16 cas ont été notifiés chez les humains, plus 1000 chiens infectés en 2016. Le nombre d'infections chez le chien n'a cessé d'augmenter, passant de 27 en 2012 à 55 en 2013 ; 113 en 2014 ; 503 en 2015 ; 1040 en 2018 ; 1935 en 2019 ; 1508 infections en 2020 ; 767 infections et 7 cas en 2021. L'approche multisectorielle mobilisée bute manifestement à une réelle implication des acteurs institutionnels ciblés mais aussi à la définition des rôles assignés à chaque acteur selon sa compétence. Face à ces dysfonctionnements observés, la présente communication s'est donnée pour objectif de faire une analyse approfondie de cette nouvelle stratégie. Les données analysées proviennent du terrain et ont été collectées dans diverses communautés du Tchad où la dracunculose reste recrudescente. L'étude a fait recours à l'approche qualitative (observation directe, entretiens). Pour mieux étayer l'analyse, deux théories ont été capitalisées : la Sociologie dynamique et la Sociologie interactionniste. Les résultats révèlent que l'approche multisectorielle mobilisée se limite seulement au niveau central lors des réunions, ateliers et revues. Le programme n'a jamais mené des actions concertées sur le terrain avec les différents ministères impliqués dans la lutte.

Mots clés : approche multisectorielle, dracunculose, Tchad

SYMPO6.
LOW ENDEMICITY BUT STILL PREVAILING RISK OF TRANSMISSION OF SOIL TRANSMITTED HELMINTHIASIS IN THE MIFI HEALTH DISTRICT (WEST REGION, CAMEROON) : IS ONE HEALTH APPROACH NEEDED?

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Background: The control of soil-transmitted helminthiasis (STH) in Cameroon is focused on large-scale deworming through annual mass drug administration (MDA) of albendazole or mebendazole to at-risk groups, principally pre-school and school-age children. After a decade of intervention, prevalence and intensity of infection have been significantly lowered, encouraging the paradigm shift from control to elimination. However, STH eggs are extremely resistant to environmental stressors and may survive for years in soils. It therefore appeared important to assess whether the risk of transmission was still prevailing, especially in a context where transmission of soil transmitted helminths in the human population had almost been interrupted.

Methods: Retrospective and prospective cross-sectional surveys were conducted in five Health Areas of the Mifi Health District (West Region, Cameroon) to: (i) assess the trends in infestation rates over three-years (2018–2020) using health facility registers, and (ii) investigate, in 2020, the contamination rates of the environment by dissemination stages of soil-transmitted helminths using the sucrose centrifugal flotation method.

Results and conclusion: The overall soil-transmitted helminth infestation rate was 4.9% (95% CI: 4.3–5.6), significantly lower than the overall soil contamination rate (12.0%; 95% CI: 8.2–17.2). These results are supportive of the low endemicity level of STHs in the Mifi Health District, but environmental pollution by dissemination stages of the parasites outlines that the risk of transmission is still persistent. It therefore appears compulsory to account for the environment when considering policy/recommendations for transmission interruption and stopping MDA, as it is in the case with vector-borne diseases.

Keywords: soil transmitted helminthiasis; transmission; persistence; Mifi Health District; Cameroon

SYMPO7.
COLLATERAL IMPACT OF IVERMECTIN MASS ADMINISTRATION ON THE LEVEL OF ENDEMICITY OF SOIL-TRANSMITTED HELMINTHS, LOIASIS AND SCABIES : EVIDENCE OF THE NEED FOR INTEGRATED CONTROL STRATEGIES

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Context and justification: Despite growing evidence of the efficacy of ivermectin (IVM) on a wide range of pathogens, there are lack of information on the impact of ivermectin-based preventive chemotherapy for onchocerciasis/lymphatic filariasis control on co-endemic infectious diseases. This study therefore aimed to investigate the collateral impact of CDTI on the level of endemicity of soil-transmitted helminthiasis, scabies and loiasis.

Methods: Cross-sectional parasitological and clinical surveys were conducted in areas were ivermectin treatments have been ongoing since more than two decades (Monatélé, Ntui, Yabassi health districts) and in ivermectin naive areas (Akonolinga, Mbalmayo health districts). Prevalences of the targeted infectious diseases were compared prior and after multiple annual rounds of ivermectin MDA, as well as between multiply-treated and naïve areas using a Chi-Square test.

Results: A significant difference STH prevalence was found between Akonolinga (43.3%; 95% CI: 38.1–46.6) and Yabassi (2.5%; 95% CI=1.1–5.1) (X^2=90.8; df=1; p<0.0001); this trend was confirmed in Ntui health district where STH prevalence dropped from 64% in 1998 to 0% in 2020.Scabies prevalences was significantly lower in ivermectin multiply-treated area (Monatélé) (10.2%; 95%CI=6.8-14.5) compared to ivermectin naïve area (Mbalmayo health district) (30.8%; 95%CI=25.4-37.1)(X^2=15.53; df=1; p=0.0002). Finally, post-ivermectin loiasis prevalence (3.7%; 95%CI=2.2-6.2) was significantly lower than the baseline prevalence (12.4%; 95%CI=0.1-15.2) (X^2=21.4; df=1; p<0.0001) in the Yabassi health district.

Conclusion: These data support the collateral impact of ivermectin-based preventive chemotherapy on the level of endemicity of STH, scabies and loiasis. Integrating the control of these co-endemic infectious diseases might accelerate the momentum toward their elimination.

Keywords: Ivermectin, collateral impact, Loiasis, STH, scabies.

SYMPO8.
UNEXPECTED HIGH PREVALENCE OF SOIL-TRANSMITTED HELMINTHIASES IN THE AYOS HEALTH DISTRICT (CENTRE REGION, CAMEROON) ONE MONTH AFTER DEWORMING CAMPAIGN : IMPLICATIONS FOR ELIMINATION

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Background: Soil-transmitted helminthiasis (STH) represents a serious public health problem worldwide, infecting about 24% of the world's population. In Cameroon, STH control is mainly achieved through school-based deworming with Mebendazole. However, despite several years of school-based deworming, the disease is persisting in some foci. It was demonstrated that adult hosts, not targeted by deworming, can constitute a parasite reservoir that can sustain transmission. This study aimed at investigating the presence of parasite reservoirs among school-aged children in the Awae health district known as a hotspot for STH infection.

Methods: A cross-sectional survey was conducted in the Ayos health district, one month after the deworming campaign was completed. Schools where treatments were yet to be distributed or untreated pupils in schools where treatments were already distributed were identified and enrolled using a non-probabilistic convenience sampling. Stool samples were harvested from targeted school-aged children (5-14years), and the Kato-Katz technique was used for the diagnosis of STHs.

Result: A total of 166 pupils aged 5 to 14 years old (median=10; IQR= 5-12) were enrolled. Among them, 30.7% (95%CI=24.2-38.1) were infected with at least one STH species. A significant decrease from 34.8% (in 2018) to 5.4% (in the present study) was observed for Ascaris lumbricoides ($p < 0.0001$). However, the prevalence of Trichuris trichiura significantly increased from 18.1% (in 2018) to 26.5% (in the present study) ($p = 0.016$).

Conclusion: This study revealed a moderate global prevalence of STH infection one month after completion of the campaign. This important reservoir is suggestive of a poor treatment compliance, and can therefore lead to the persistence of infections. Further actions are needed to tackle this reservoir, and accelerate the momentum towards elimination of STH in the Ayos Health District.

Keywords: Soil-transmitted helminthiasis, parasite reservoir, persistence, Ayos health district, Cameroon.

SYMPO09.
ÉPIDÉMIOLOGIE DE LA LÈPRE AU TCHAD DE 2015 À 2019

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Introduction : La lèpre est une maladie présente au Tchad, inégalement répartie. Depuis 1997, la prévalence annuelle nationale est inférieure à 1/10000 habitants, seuil d'élimination fixé par l'Organisation Mondiale de la Santé (OMS). Le but de cette étude est de décrire les tendances épidémiologiques de la lèpre au Tchad entre 2015 et 2019, afin de fournir les données nécessaires pour l'élaboration de stratégies de lutte plus efficace contre la lèpre.

Méthode : Il s'agissait d'une étude rétrospective descriptive sur les cas de lèpre survenus entre 2015 et 2019 à l'échelle nationale à partir de la base de données du Programme National de Lutte contre la Lèpre au Tchad (PNLLT).

Résultats : Au total, 1896 nouveaux cas de lèpre ont été détectés au Tchad entre 2015 et 2019, la proportion des patients âgés de 15 à 70 ans et celle des enfants de moins de 15ans étaient de 92.08% et 7.92 %. Le sexe ratio (H/F) était de 1.68. Le taux de détection moyenne annuelle est de 2,6/100 000, un taux moyen de 83.10% de cas de lèpre multi bacillaire, et 20.38% d'incapacité de degré 2 (ID2) parmi lequel 0.92% ID2 chez les enfants de moins de 15 ans en moyenne. Cependant notre l'étude a relevé cinq districts sur endémiques (Adré, Abéché, Aboudeia, Koukou, et Bebedjia) en 2019 où le taux de prévalence est supérieur à 1/10000 habitants.

Conclusion : Les tendances épidémiologiques sont en faveur de la persistance de la maladie et un retard de diagnostic dans la prise en charge des cas de lèpre.

Mots clés : Lèpre, épidémiologie, Mycobacterium leprae, Tchad.

SYMPO10.
TRYPANOSOMIASIS RISK IS PRESENT AND HAT TRANSMISSION IS POSSIBLE IN DOUALA AND ITS SURROUNDINGS, LITTORAL-CAMEROON

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Douala, Cameroon economic capital is a formal Human African trypanosomiasis (HAT) focus. Urban development level limits tsetse flies distribution to the refuges constituted by the surrounding mangroves. In addition, climates changes have important influence. These bring modifications in disease distribution, evolution and expansion and could come to an outbreak, this process remains poorly documented. Global monitoring should be raised up. This work presents the spatio-temporal distribution of tsetse in these refuges which would constitute potential trypanosomiasis trans-

mission risk area. The study was designed and performed on the outskirts of the city of Douala and in its neighboring. For this, sites were chosen; biotopes identified and described. Gouteux et Lancien pyramidal trap were set up for 4 consecutive days in each site and during the 14 entomological surveys of the whole study. Flies were identified and their density evaluated. A total of 2840 tsetse flies of the species Glossina palpalis palpalis were recorded. Flies were captured each session in all sites prospected. The highest number, 1174 (41.30 %) was recorded in Manoka; while only 32 (1.1%) was observed in Yabassi. A 2.12 F/T/D global ADT was obtained. According to the different sites and season the most important value was seen in Manoka. Youpwe and Sodiko-village shows little variation in mangrove while in Manoka, village-edge shows the most important rates. This study reveals that conditions need for presence; development and maintenance of tsetse flies populations, wild reservoir as well as possible HAT transmission and outbreak's risk are found in this littoral region.

Keys words: Outbreaks, Trypanosomiasis, Quiescent Focus, Climate Changes, Elimination.

SYMPO11.
PREVALENCE OF TRYPANOSOMIASIS IN SMALL RUMINANTS, DOGS AND PIGS IN THREE SLEEPING SICKNESS FOCI IN SOUTH OF CHAD

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Introduction: In Africa and in Chad in particular, diseases transmitted by tsetse flies are a major problem for both human and animal health. The aim of this study was to determine the prevalence of trypanosomiasis in small ruminants in the foci of sleeping sickness in southern Chad.

Méthodologie: Blood samples were collected from 443 randomly selected local goats, 339 sheep, 228 dog and 98 pig of different sex, age and body condition in the Mandoul, Maro and Moissala foci. The samples collected were analyzed using rapid serological (RDT), capillary tube centrifugation (CTC) and molecular (PCR) parasitological tests.

Results: The CTC test revealed trypanosomes in 6.31% of the animals sampled while 14.25% were seropositive with the RDT test. One hundred and eighty-four (16.60%) animals out of 1108 were found to carry T. brucei s.l complex trypanosome DNA, including 90 (20.31%) goats, 52 (15.33%) sheep, 33 (14.47%) dog and 9 (9.18%) pig. These positive samples were observed in all animal species and yielded 6.58% T. congolense, 4.78% T. congolense «forest type», 1.89% T. congolense «savannah type», 2.07% T. vivax and 1.62% T. b. gambiense. The prevalence of T. congolense and T. congolense «forest type» differed significantly between foci ($p < 0.0001$) and not between animal species.

Conclusion: The study confirmed the circulation of many species of trypanosomes in small ruminants in the Chad outbreaks. This disease has a significant impact on production and a potential risk of transmission to other animals. The implementation of trypanosomiasis control with an integrated approach is of vital importance in the study sites.

Mots Clés: Prevalence, trypanosomiasis, small ruminants, dogs and pigs, HAT outbreaks in Chad.

SESSION 3
MOYENS INNOVANTS ET STRATÉGIES ALTERNATIVES DE LUTTE CONTRE LES MTNS / INNOVATIVE AND ALTERNATIVE STRATEGIES TO CONTROL NTDS

SYMPO12.
PERCEPTION ET PRÉFÉRENCE DE L'UTILISATEUR FINAL POUR LES FORMULATIONS ORALES DE LA MOXIDECTINE PÉDIATRIQUE

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Contexte et justification : Malgré le lourd fardeau des maladies tropicales négligées observé aussi bien chez les enfants que les adultes, moins de 15% des médicaments ont une forme pédiatrique. L'objectif de cette étude était d'évaluer perception de l'utilisateur final des formulations orales pédiatriques, en vue de développer la forme pédiatrique de la moxidectine.

Méthodologie : Il s'agissait d'une étude transversale mixte qualitative et quantitative menée dans les Districts de Tignère, Soa, Yabassi et Penka-Michel, incluant les enfants de 6 - 12 ans, les mères d'enfants, les distributeurs communautaires et le personnel de santé. Nous avons mené un échantillonnage de convenance avec une taille minimale calculée à 407 participants. Les données quantitatives étaient collectées grâce au Pediatric Oral Medecines Acceptability Questionnaire. Les entretiens et les groupes de discussion étaient conduits avec un guide évaluant la perception vis-à-vis des différentes formulations possibles.

Résultats : Nous avons remplis 508 questionnaires, et conduit 119 entretiens et 20 groupes de discussion. La facilité à avaler était modérée pour les formes orodispersibles et les comprimés à macher avec un score moyen de 3,7± 1,1 sur 5, et bonne pour les sirops avec une score moyen de 4,02 ± 0,9. La forme orodispersible était préférée aux comprimés à mâcher, et le goût agréable était un paramètre important. La peur des effets secondaires a été évoquée comme barrière.

Conclusion : La forme orodispersible serait la forme préférée par les utilisateurs finaux de la moxidectine pédiatrique. Une sensibilisation ciblant les mauvaises perceptions pourrait améliorer l'acceptabilité du médicament.

Mots clés : Formulations ; Moxidectine pédiatrique ; Perception ; Cameroun.

SYMPO13.
ENVIRONMENT FRIENDLY VECTOR CONTROL (SLASH AND CLEAR) TO ACCELERATE ONCHOCERCIASIS ELIMINATION IN A HIGH TRANSMISSION AREA: A PILOT STUDY IN THE MBAM VALLEY (CENTRE REGION, CAMEROON)

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Background: Although "slash and clear" has already proven its effectiveness in reducing blackfly densities in low transmission foci, the feasibility and impact of this strategy in very high transmission foci with large rivers and important vector densities is yet to be demonstrated. We therefore initiated a pilot study in the Mbam valley (Centre Region, Cameroon) to evaluate the impact of "slash and clear" approach on blackfly densities and onchocerciasis transmission.

Methods: Two first-line villages (Bayomen used as control site and Biatsota used as intervention site) where targeted for the study. In each village, baseline data were collected for one year (October 2019 to December 2020), using human landing catching (HLC) method. Two days of ground and boat prospection was done, for the identification and characterization of blackflies breeding sites. The slashing and clearing trailing vegetation where blackflies breed was conducted from December 2020 to August 2021. Generalized estimating equations were used to evaluate the effect of intervention, adjusted on baseline data.

Results: Prior to intervention, a total of 56,870 and 51,240 blackflies were collected in Bayomen and Biatsota, respectively. No significant difference was found between the two villages (p= 0.7545). The main attachment points for the blackfly larvae were the plant namely Pandanus candelabrum (>90% of larvae/pupae). After the intervention (destruction of the blackfly habitat) period, blackfly densities declined from 51,240 to 25,520 in the intervention site (50.2% reduction) while in the control site, the densities declined from 56,870 to 49,471 (13% reduction); the observed reduction was significantly more important in the intervention site compared to the control site (p=0.0213).

Conclusion: This study revealed that the "slash and clear" approach has a significant impact on vector densities in a very high transmission setting. Additional studies are needed to investigate the long-term impact of the "slash and clear" strategy, and how it can be used to supplement mass drug administration in high transmission settings to accelerate the onchocerciasis elimination.

Key words: Onchocerciasis, blackfly, slash and clear, Mbam valley, Cameroon

SYMPO14.
BLACKFLY POPULATION DYNAMICS IN SUPPORT OF A NOVEL VECTOR CONTROL APPROACH IN THE ESEKA HEALTH DISTRICT

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Background: Global statistics report 20.9 million people infected by onchocerciasis worldwide, 14.6 million suffering from skin damage and 1.5 million from loss of sight. The control of onchocerciasis essentially relies on community-directed treatment with ivermectin (CDTI). In areas where onchocerciasis and loiasis are co-endemic, CDTI is prohibited as it can lead in potentially deadly serious adverse events (SAEs) in patients heavily infected with Loa loa. It appears compulsory to identify SAEs risk-free alternative or complementary interventions to guarantee complete elimination of onchocerciasis. The "slash and clear" approach is a promising vector control strategy, and its implementation and evaluation need the collection of baseline data. This study therefore aims to investigate the population dynamics of blackflies in the Eseka health district where onchocerciasis and loiasis are co-endemic.

Methods: Monthly (3 days per month) capture of blackflies was carried out over a period of 12 months along the Kelle River. Flies captured using human landing catching were dissected under a stereomicroscope for parity then for infection (only parous females). Onchocerca volvulus L1 and L2 stage larvae were searched in the abdomen/thorax of flies, and L3 stage larvae were searched in the heads. Entomological data (parity, monthly biting rate, infection rate, infectivity rate, monthly and annual transmission potentials) were computed.

Results: A total of 9.720 blackflies were collected over one year, with important variations observed in blackfly densities throughout the year (peak in April-May). The monthly biting rate varied between 20 bites in August to 39.480 bites in April. Overall, 6.061 blackflies were dissected for parity, and 608 (10.0%) were found parous. The infectious (in the Thorax/abdomen) and infectivity (in the head) rates were 0.4% and 0.2%, respectively. The monthly transmission potential was zero, except in May where it was equal to 17.7 ; the annual transmission potential was 17.7.

Conclusion: This study revealed that the dynamic of the transmission is seasonal in the Eseka health district. The implementation of slash and clear, especially during the transmission period, can help accelerating the elimination of the disease in this area.

Keywords: Blackfly, onchocerciasis, transmission, Eseka health district, Cameroon

SYMPO15.
IMPACT OF DELTAMETHRIN IMPREGNATED SCREENS ON TSETSE FLY POPULATION DENSITIES AND TRYPANOSOMES CIRCULATION IN CAMPO SLEEPING SICKNESS FOCUS, SOUTHERN CAMEROON

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Background: Tsetse control has played an important role in sleeping sickness elimination in many African foci. The Campo HAT focus is a persistent area where around 20 new HAT cases were still diagnosed and treated in 2019. In this study, we evaluated the impact of deltamethrin impregnated screens on tsetse densities and trypanosomes circulating in Campo.

Methods: Initial tsetse densities were recorded through tsetse captures with pyramidal traps and their trypanosome infection rates were detected with PCR-based methods. Around 2000 insecticide-treated screens were deployed on the South-West and replaced every six months, while the eastern part was considered as control. Post-intervention surveys were conducted every six months and tsetse densities and trypanosome infections were compared with initial records.

Results: We observed a reduction in fly catches by 73.69% after twelve months of control; pre-intervention: 2.48 (1.92-3.14) flies/trap/day; 12-months post-intervention: 0.66 (0.42-0.94) tsetse/trap/day. This decrease was not sustained after 18 and 24-months post-intervention with increased densities of 1.45 and 1.71 tsetse/ trap/day respectively. In control area, there was a general density increase, from 2.43 to 3.64 tsetse/trap/day after 2 years. In addition, trypanosome infection rates significantly dropped by around 75% in in both areas (from 21.20% to 5.06% and from 13.14% to 3.45% respectively).

Conclusion: We showed the importance of vector control in reducing trypanosomes circulation, providing evidence for the integration of this tool in current strategies towards trypanosomiasis elimination in Campo.

Keywords: Tsetse control, Tiny targets, Sleeping Sickness Elimination, Cameroon.


AU CAMEROUN, LE PROGRAMME
USAID'S ACT TO END NEGLECTED TRO
DISEASES | WEST
SOUTIENT LE MINISTE
DE LA SANTE PUBLI
DANS LA LUT
L'ONCHO
FILARIOSE
ET LE
L'ONCHOCERCOSE


Combatting NTDs
Saving Sight


Beat NTDs
For Good,
For All.

HELEN KELLER INTL

CELEBRATION OF THE WORLD NTDs DAY 2022

30 January 2022 WORLD NTD DAY NEGLECTED TROPICAL DISEASES

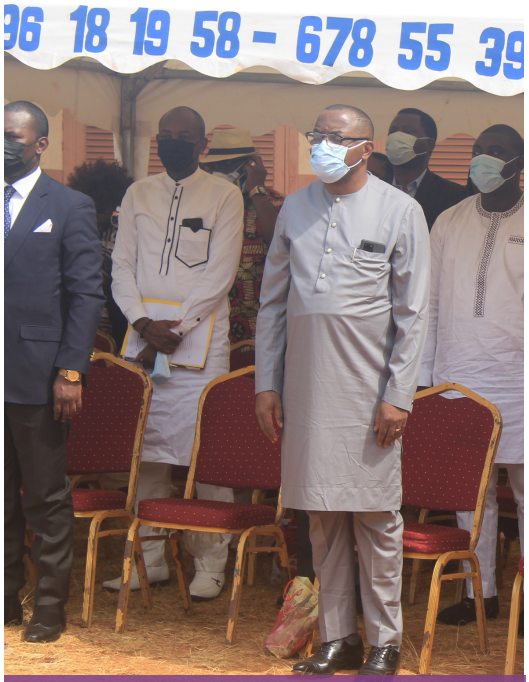
The World NTD Day brought together civil society advocates, community leaders, global health experts and policymakers working across the diverse NTD landscape, and unified partners behind our common goal: to Face NTDs and #EndTheNeglect.

30 January was the anniversary of the landmark 2012 London Declaration on NTDs, which unified partners across sectors, countries and disease communities to push for greater investment and action on NTDs. The World NTDs Day did not only honor this incredible show of support, but it inspires and rallies partners each and every year behind the fight to #BeatNTDs.

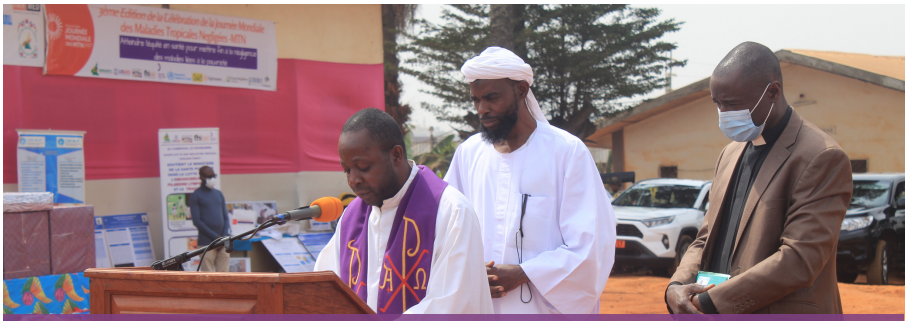
Guests visiting the CRFILMT stand

Speech of CERAC representative

Helen Keller's Country Director visiting our stand



Secretary General of the MOH during the national anthem



Ecumenical prayer to open the celebrations

Family picture of the symposium

Helen Keller Intl presentation by the NTDs Program Advisor

MINSANTE Ministère de la Santé Publique · USAID FROM THE AMERICAN PEOPLE · Act to End NTDs WEST · fhi360 THE SCIENCE OF IMPROVING LIVES · HELEN KELLER INTL

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POSTERS
COMMUNICATIONS AFFICHÉES

SYMPP01.
REVUE SYSTÉMATIQUE DE LA LEISHMANIOSE VISCÉRALE EN L'AFRIQUE CENTRALE : SOUS-ESTIMATION DES CAS

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Contexte et justification : En Afrique noire, les maladies infectieuses restent l'un des défis les plus importants en santé publique parmi lesquelles, la leishmaniose viscérale (LV). Appelé également Kala-azar, elle est mortelle en absence de traitement et fait partie des 20 maladies tropicales négligées. D'après l'OMS, environs 50 000 cas sont enregistrés chaque année. En Afrique, des milliers de données épidémiologiques ne sont pas rapportés soit que les pays ne disposent pas des outils standardisés de recueille des données soit ne les rapportent seulement pas. Cet article passe en revue la LV en Afrique centrale et est basé sur des articles écrits depuis les premières déclarations des cas jusqu'à 2020.

Méthodologie : L'étude s'appuie sur la documentation rapportant sur la distribution, les parasites, les réservoirs et les vecteurs de la LV dans 9 pays d'Afrique centrale. Les données présentées provenaient des sources scientifiques consultées en ligne. Les recherches comportaient les termes suivants : « leishmaniose viscérale », « leishmania donovani », « leishmania infantum », «phlébotome», « réservoir de Leishmania » « Afrique centrale ».

Résultats et conclusion : Compte tenu de la rareté des données (102 cas en 100 ans), des mesures doivent être prises pour améliorer les systèmes de surveillances existant ou en établir là où il n'existe pas en se basant des outils standardisés élaborés par l'OMS. Aussi, les recherches doivent être encouragées et entreprises afin de connaitre précisément où se trouve les foyers de la LV en Afrique centrale.

Mots-clés: leishmaniose viscérale, sous-estimation, Afrique Centrale

SYMPP02.
LONG-TERM FOLLOW-UP OF ONCHOCERCA VOLVULUS PARASITOLOGICAL INDICATORS AFTER DECADES OF COMMUNITY-DIRECTED TREATMENT WITH IVERMECTIN (CDTI) : WHAT REALLY MATTER BETWEEN PREVALENCE AND INTENSITY OF INFECTION ?

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Background: Onchocerciasis control started in the 1990's, and after almost 3 decades of control, the disease still persists in some areas. Follow-up of impact of ivermectin-based preventive chemotherapy on infection mostly relies on prevalence reduction rates. However, Onchocerca volvulus is a long-live parasite (10 years on average but can live up to 15-17 years), and the likelihood to have persistent infection, based on prevalence, is high, especially in a short time frame. The objective was therefore to investigate whether the dynamics of prevalence and intensities of infections were similar, and decipher which of the two indicators is useful to follow the impact of MDA O. volvulus infection.

Methods: Only prevalence data and microfilarial load communities that were obtained using the same survey methods in the health districts of bafia and yabassi were retained.

Results: Comparisons made by the chi-2 test in communities in Yabassi (p=0.2061) health district and in the communities of the Bafia health district (p=0.2269) showed a non-significant reduction; this can be explained by long life of adult worms producing microfilariae! Furthermore, the monitoring of CMFLs in the Yabassi health district from 2000 to 2018 shows a slight increase in the communities of Ndogpo and Nkongmalan in 2015 and a decrease in 2018 in the Bafia health district, parasite intensities decreased during all the assessment years.

Conclusions: The use of infection intensities are more specific for assessing infection levels in a population under ivermectin treatment.

Keywords: Onchocerciasis, MDA, Prevalence, Community microfilarial load.

SYMPP03.
IMPACT DE 15 ANS DE TRAITEMENT À L'IVERMECTINE SUR L'INDICATEUR ÉPIDÉMIOLOGIQUE DE L'ONCHOCERCOSE AU TCHAD

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Contexte et justification : En 2013, l'Organisation mondiale de la Santé (OMS) a déclaré indemne d'onchocercose humaine trois pays d'Amérique latine pendant que 31 pays d'Afrique subsaharienne et le Yémen au Moyen Orient restent toujours endémiques. Au Tchad, l'onchocercose constituait un problème de santé publique. Pour son élimination, trois stratégies avaient été mises en oeuvre depuis la création du Programme National de Lutte contre l'Onchocercose à savoir le traitement à l'Ivermectine par l'équipe mobile (1990-1992), le traitement à l'Ivermectine à base communautaire (1993-1997) et le Traitement à l'Ivermectine sous Directive Communautaire (1998 à nos jours) dans 42 districts sanitaires sur 128. Après plusieurs années de traitement de masse, des enquêtes ont été réalisées entre 2009-2015 afin de déterminer le niveau actuel de l'infection onchocerquienne au Tchad.

Méthodologie : Le dénombrement, la biopsie cutanée exsangue et la lecture microscopique des microfilaires sont des étapes utilisées pendant l'évaluation épidémiologique. Pour l'OMS, les préva-

lences standardisées de 0,5% et les Charges Microfilariennes Communautaires (CMFL) doivent être inférieures à 1% dans 90% des villages enquêtés pour déclarer que la maladie ne constitue plus un problème de santé publique.

Résultats : Sur 109 166 personnes enquêtées au cours de cette évaluation, 70 (0.06%) étaient positifs dans 13 villages sur 301.

Conclusion : Les Charges Microfilariennes Communautaires des personnes enquêtées étaient inférieures à 1% dans plus de 90% des villages enquêtés ce qui montre que le Tchad à éliminer l'onchocercose entant que problème de santé publique.

Mots clés : Onchocercose, Ivermectine, Elimination, Santé publique, Tchad

SYMPP04.
SIGNIFICANTLY REDUCED BUT STILL EXISTING RISK OF POST-IVERMECTIN SERIOUS ADVERSE EVENTS IN THE BANKIM HEALTH DISTRICT (ADAMAWA REGION, CAMEROON) : A PEBBLE IN THE SHOE TOWARDS ONCHOCERCIASIS ELIMINATION

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Context and justification: Implementation of ivermectin-based preventive chemotherapy (CDTI) for onchocerciasis elimination has been delayed in Central Africa because of serious adverse events (SAEs) with sometimes fatal outcomes in people harboring high levels of circulating Loa loa microfilariae (mf). A recent study described a significant collateral impact of about two decades of CDTI against onchocerciasis on prevalence and intensity of Loa loa infection, and it is likely that the reduction in Loa loa microfilarial density will reduce the likelihood of SAEs. The present study aimed at investigating whether long-term CDTI can reduce the risk of occurrence of SAEs.

Methods: A cross-sectional survey was conducted in three communities of the Bankim Health District (Adamawa Region, Cameroon), where many SAE cases have been reported in the past two decades. Volunteers of both genders, aged ≥5 years, underwent calibrated thick blood smears for loiasis examination.

Results: The overall prevalence of loiasis was 9.64% (95% CI: 7-12.7%), and the mean microfilarial density was 691.49 mf/mL of blood (Standard Deviation: 4293.87; Maximum: 65,000 mf/mL). The proportion of people harboring very high microfilarial density (>30,000 mf/mL) was 0.4% (95% CI: 0.07– 2.2). The follow-up of parasitological indicators over 20 years of CDTI revealed a significant decrease in prevalence and intensity of Loa loa infection compared to baseline (p= 0.0001).

Conclusions: This result suggests that despite the significant reduction in prevalence and intensity

of Loa loa infection, the risk of SAEs is still existing, indicating that surveillance of SAEs is still compulsory during the implementation of ivermectin-based preventive chemotherapy against onchocerciasis. Alternatively, a "Test and Not Treat" (TaNT) strategy can be used to identify and exclude from ivermectin treatments individuals heavily infected with Loa loa, and therefore prevent the occurrence of SAEs.

Keywords: Loiasis, CDTI, SAEs, Bankim, Cameroon.

SYMPP05.
RISK FACTORS AND PREVALENCE OF HUMAN AFRICAN TRYPANOSOMIASIS IN INDIVIDUALS LIVING IN REMOTE AREAS OF THE REPUBLIC OF CONGO

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Contexte et justification : La trypanosomiase humaine africaine (THA) est l'une des maladies tropicales négligées classiques dans le monde et représente une menace majeure pour la santé publique en Afrique sub-saharienne. Bien que la maladie parasitaire soit en déclin en République du Congo, une meilleure compréhension de la situation épidémiologique des foyers actifs est nécessaire pour réduire le risque de résurgence de la maladie qui pourrait entraver les progrès enregistrés jusqu'à présent. L'objectif de cette étude était de déterminer la prévalence de la THA et les facteurs de risque associés chez les personnes vivant dans les zones reculées de la République du Congo.

Méthodologie : Une enquête transversale a été réalisée chez des volontaires vivant en milieu rural de juin 2020 à janvier 2021. Les paramètres sociodémographiques et cliniques des participants ont été enregistrés. La présence d'anticorps spécifiques de la THA a été évaluée dans le sang total, puis confirmée dans des échantillons de plasma dilués en série en utilisant le Card-Agglutination Trypanosomiasis Test (CATT)/T.b. gambiense CATT. Le stade de la maladie pour les participants positifs a été déterminé par l'examen du liquide céphalo-rachidien (LCR).

Résultats : Sur les 8556 participants inscrits, 48,5% avaient plus de 15 ans, 61,6% n'étaient pas scolarisés et 67,2% pratiquaient des activités paysannes. La prévalence de l'infection par la THA était de 0,3% avec une prédominance des patients au stade 1 de la maladie (84,0%). Les districts de Mindouli (OR : 25,9 (5,2 - 468) ; p= 0,0016) et Mpouya (OR : 13,3 (2,5- 246) ; p= 0,0140) se sont révélés être les foyers à haut risque d'infection par la THA. Plusieurs facteurs ont été associés à un risque accru d'infection par la THA, notamment la non-scolarisation (OR : 4,6 (1,4 - 28,5) ; p= 0,0394), la vie en couple ou mariée (OR : 3,7 (1,6 - 9,5) ; p= 0,0033) et la pratique d'activités paysannes (OR : 6,9 (2,4 - 29,3) ; p= 0,0017).

Conclusion : Cette étude souligne la nécessité de réviser et de renforcer les stratégies de lutte contre la THA en République du Congo, en utilisant une approche qui prendra en compte le niveau d'éducation, le statut marital et la profession de la population à risque.

Mots-clés : Trypanosomiase humaine africaine, Facteurs de risque, République du Congo.

SYMPP06.
NO TRANSMISSION RISK BUT PREVAILING DANGER FOR HUMAN AFRICAN TRYPANOSOMIASIS (HAT) IN THE BIPINDI HISTORICAL FOCUS, SOUTH REGION, CAMEROON : WHAT ARE PUBLIC HEATH IMPLICATIONS FOR ELIMINATION ?

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Background: The control of Human African Trypanosomiasis (HAT) - commonly known as sleeping sickness - in Cameroon relies on case detection and treatment campaigns, and more recently on vector control. These interventions have considerably reduced the prevalence of the disease, and only few cases are currently reported in active foci, including the Bipindi historical focus. In the 2021- 2030 World Health Organization roadmap for neglected tropical diseases (NTDs), HAT is targeted for elimination by 2030. This study aims to update the HAT transmission risk in the Bipindi focus (South Region, Cameroon) for further actions and decisions.

Methods: Two entomological surveys were carried out in four formerly known epicentre villages of the Bipindi focus. Tsetse flies were captured using pyramid traps, dissected under stereo-microscope, and the midguts of all dissected tsetse flies were preserved in absolute ethanol for detection and identification of trypanosomes using polymerase chain reaction (PCR) targeting the internal transcribed spacer (ITS) region of ribosomal DNA. In addition, fresh blood meals were harvested and their origin determined using the heteroduplex technique.

Results: A total of 708 tsetse flies were captured, the apparent density of tsetse flies (number of flies per trap per day) being 2,27. Glossina palpalis palpalis was the predominant species, accounting for 99.0% of the flies captured. Molecular analysis revealed that 86 (23.2%) tsetse flies were infected with trypanosomes, 34.9% of them belonging to the Trypanozoon sub-genus, 70.9% to the Nannomonas sub-genus and 8.1% to the Dutonella sub-genus; none of these flies harboured the human parasite, T. brucei gambiense. A total of 24 blood meals were harvested and the heteroduplex processing revealed that tsetse flies host preference was made up of humans (16.7%), domestic animals such as pigs (25.0%), goats (8.3%), dogs (12.5%), and other undetermined species (29.2%), likely wild animals.

Conclusion: This study revealed that the risk of HAT transmission in the Bipindi focus appears inexistent as no T. brucei gambiense was found in these formerly known epicentre villages. However, the established circulation of animal trypanosomes in this focus suggests that the danger of sleeping sickness still prevails and should be talked to prevent potential resurgence.

Keywords: Sleeping sickness, risk of transmission, Bipindi, Cameroon.

SYMPP07.
A MALACOLOGICAL SURVEY REVEALED RESIDUAL TRANSMISSION OF INTESTINAL SCHISTOSOMIASIS IN NDIKINIMEKI HEALTH DISTRICT (CENTRE REGION, CAMEROON) DESPITE INTRODUCTION OF COMPLEMENTARY CONTROL STRATEGIES: PROSPECTS FOR ELIMINATION

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Background: Schistosomiasis remains a great challenge in many endemic countries around the word, especially in poor and rural communities where access to adequate water and sanitation is limited. In most endemic countries, control measures essentially rely on school based preventive chemotherapy (PC) with praziquantel which has been clearly shown insufficient to interrupt the disease transmission in endemic foci such as Ndikinimeki Health District in Cameroon. Complementary strategies (Community-based PC, WASH and Health Education) have therefore been implemented to accelerate the transmission interruption. This study aims to investigate whether a residual transmission has been sustained by snail intermediate hosts, despite more than 10 round of School-based PC and introduction of complementary strategies.

Method: A cross-sectional malacological survey was conducted in March 2021 in selected water bodies of the Ndikinimeki Health District. Snails were collected during seven days using a standardized scooping technique. Collected snails were identified using shell morphology feature and maintained in the laboratory during 30 days during which they were daily test for cercarial emission.

Result: A total of 342 snails were collected and identified as Biomphalaria pfeifferi for 81.3 % of them and Biomphalaria camerunensis for 18.7%. Overall, 20 (5.84%) of these Biomphalaria species found in Mock River in Baloua community and Mbeyebeng stream in Kiboum community were shedding Schistosoma spp cercariae.

Conclusion: These finding confirm the existence of residual transmission of schistosomiasis in the Ndikinimeki Health District despite implementation of complementary strategies, thus raising the need to implement snail control to complement current strategies and therefore accelerate the schistosomiasis transmission interruption in this focus and reach the 2030 goals.

Keywords: Malacological survey, Persistent transmission, Ndikinimeki Health District.

SYMPP08.
SPATIAL DISTRIBUTION OF ASCARIS LUMBRICOIDES, TRICHURIS TRICHIURA AND HOOKWORM INFECTIONS AS WELL AS THEIR INFECTION INTENSITIES IN VILLAGES OF MAKENENE IN CENTRE REGION OF CAMEROUN

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Background: Preventive chemotherapy with anthelminthic administered to school-aged children has significantly reduced the impacts of geo-helminthiasis. However, geo-helminthiasis eliminations could be jeopardize by disparities that have been observed in the prevalence and infection intensities of geo-helminth infections in ecological settings. This study aimed to map geohelminth infections and their infection intensities in order to identify highly endemic villages.

Methods: This study was conducted in ten primary schools of eight villages of Makenene. Stool samples were collected from 1775 children. Kato Katz was used to detect and quantified geo-helminths' eggs. Geographical coordinates of infected children' houses were recorded and geo-helminth infections were mapped using QGIS software.

Results: The overall prevalence of geohelminth infections was 4.8%: 3.0% for Ascaris lumbricoides, 1.4% for Trichuris trichiura and 0.8% for hookworms. Seven (0.4%) double infections were recorded. Between schools, significant differences were observed in the prevalence of geo-helminths. The mean of infection intensities was 5395 EPG: 7255 EPG for A. lumbricoides, 2900 EPG for T. trichiura and 298 EPG for hookworm. No significant difference was recorded in the means of infection intensities according to age and schools. Most infected children and those harbouring heavy infections were clustered in villages Carriere, Baloua, Nyokon and Kinding-Ndjiabi.

Conclusion: This study confirmed the low prevalence and high infection intensities of geo-helminths in villages of Makenene. Hot-spots transmission sites are clustered in the same villages. Fine mapping enabled to localize high geo-helminthiasis endemic villages were control measures must be boosted to achieve geo-helminthiasis elimination.

Keywords: Geo-helminthiasis, infection intensity, mapping, Makenene

SYMPP09.
ESTIMATING THE PERFORMANCE OF THE MINI-FLOTAC TECHNIQUE FOR THE DIAGNOSIS OF SOIL TRANSMITTED HELMINTHS: A MULTICENTRE AND MULTIDIMENSIONAL STUDY

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Background: Soil-transmitted helminthiases (STHs) are among the most prevalent afflictions of the developing world, with approximately 2 billion people infected worldwide. Periodic deworming with Albendazole or Mebendazole of high-risk groups (school-age children, preschool children, and pregnant women) can significantly lower the levels of infections below the threshold associated with morbidity. Kato-Katz technique is the routine technique for the diagnosis of STH. However, it has been demonstrated that this technique can loss sensitivity when the prevalence and intensity of infections are low, calling for alternatives to this technique to monitor the success

of control programs. This study therefore aimed to assess the performances of a newly developed technique that has proven to be highly effective in veterinary parasitology.

Methods: Stool samples were collected from males and females, aged 5 years and above, as part of cross-sectional surveys carried out in areas with diversified socio-demographic, ecological and environmental features. Samples were processed both by the Kato-Katz and the mini-FLOTAC techniques. Infection rates were expressed as the percentage of infected individuals among the total number of individuals examined. The 95% confidence interval (CI) for prevalence was calculated using the Wilson method not corrected for continuity. The intensity of infection was defined as the arithmetic mean number of eggs, the sampling fluctuations being estimated using standard deviation. Chi-square, Mann-Whitney and Kruskal-Wallis tests were used to compare STH infection rate and mean intensity of infection between using both techniques, while accounting for clusters, genders and age groups, respectively. In addition, the performance (sensitivity, specificity, VPN, VNN) of mini-FLOTAC were assessed (using Kato-Katz as the reference) and the concordance between both tests measured by the Kapa statistics.

Conclusion: This study revealed that mini-FLOTAC exhibited better performances compared to Kato-Katz, especially in low endemicity settings. Further studies should be conducted to investigate whether mini-FLOTAC can be used for monitoring and evaluation of the impact of interventions on the transmission of soil transmitted helminthiasis.

Keywords: soil-transmitted helminthiasis, Kato-Katz, Mini-FLOTAC, Kappa statistics

SYMPP10.
ÉPIDÉMIOLOGIE DU PALUDISME, DE L'ANÉMIE ET DES GEOHELMINTHIASES CHEZ DES ÉCOLIERS ASYMPTOMATIQUES APRÈS UNE CAMPAGNE DE DEPARASITAGE SCOLAIRE À YAOUNDÉ, CAMEROUN

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Contexte et justification : Le paludisme et les geohelminthiases continuent d être un problème de santé publique dans les pays en développement. Le but de notre étude est d'évaluer la prévalence du paludisme, des geohelminthiases, de l'anémie et les facteurs de risques associés à cette anémie chez les écoliers de l'école publique de Melen et de l'école privée Marie Albert de Biteng.

Methodologie : 126 écoliers ont participé à cette étude. Les données socio démographiques et épidémioloques ont été collectés chez chaque écolierPour déterminer la parasitemie et l'anémie le sang à été obtenu par piqûre de la pulpe du doigt à l'aide d'un vaccinostyle. Les selles ont été recueillis dans des pots stériles à couvercle pour déterminer la présence des parasites intestinaux.

Résultats : Nos résultats ont montré que 60,31% IC5% (51,8-68,9) de parents ont déclaré que leurs enfants dormaient sous moustiquaires imprégnés et l'indice plasmodique chez les écoliers était de 6,34% IC95% (2,1-10,6). La prévalence des geohelminthiases et de l'anémie chez les écoliers était respectivement de 0,79% IC95% (0-2,3) et de 37,30%IC95% (28,9-45,7). L'anémie n'était pas statistiquement liée à l'âge ni au sexe.

Conclusion : De nouvelles études sur les campagnes de deparasitage scolaire et sur l'utilisation des moustiquaires devraient être réalisées en vue d'évaluer leur efficacité sur la santé des populations. L'anémie n'était liée à aucun facteur de risqué.

Mots clés : paludisme, geohelminthiases, anémie.

SYMPP11.
EVALUATION DE L'EFFICACITÉ DES MILDA DISTRIBUÉES À EYANG ET BERTOUA DANS LES RÉGIONS DU CENTRE ET DE L'EST

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Contexte et Justification : Les MILDA constituent une des interventions majeures de lutte préventive contre le paludisme. Il est nécessaire de suivre l'efficacité de ces dernières afin de proposer des mesures correctives pour améliorer la stratégie. Le présent travail a pour objectif de déterminer l'intégrité physique et la bio efficacité des MILDA, distribuées après les campagnes de distribution de 2015 et 2019, à Eyang et Bertoua.

Méthodologie : Les taux de possession et d'utilisation ont été évalué à l'aide d'un questionnaire. L'état physique des MILDA a été déterminé conformément au protocole OMS basé sur l'indice des trous, l'efficacité résiduelle des MILDA a été déterminée par un essai biologique sur cône utilisant des souches d'A. gambiae s.l issues des populations naturelles de terrain, et des souches sensibles (souche Kisumu) maintenues en élevage.

Résultats : Le taux de possession des ménages en MILDA a été respectivement de 66,67% et 67,90% à Eyang et Bertoua. Les taux d'utilisations régulières ont été de 58,18% et 73,33% respectivement. L'altération des MILDA a été plus importante dans la localité de Bertoua avec 59,61% des MILDA classées comme trop déchirées contre 44% à Eyang. Les MILDA des 2 localités, ont montré une faible efficacité sur les populations naturelles d'A. gambiae s.l, avec un taux de mortalité plus élevé à Bertoua où l'insecticide était combiné au PBO, un synergiste, soit 34,99% contre 6,75% à Eyang.

Conclusion : Ces résultats soulignent la nécessité d'un remplacement plus fréquent des MILDA dû à la résistance des vecteurs aux insecticides utilisés, de promouvoir de bonnes pratiques sur l'entretien et le lavage des moustiquaires.

Mots clés : MILDA, Intégrité physique, Bio efficacité, A. gambiae s.l, Cameroun.

SYMPP12.
ÉVALUATION ENTOMOLOGIQUE DE LA BIOEFFICACITE DES MOUSTIQUAIRES IMPRÉGNÉES VENDUES DANS LES DIFFÉRENTS MARCHÉS DE LA VILLE DE DOUALA

Lowe Toukam Christelle Laura[1], Nopowo Noël[1], Ngaha Rachelle[1], Ndo Cyrille[1], Akono Ntonga Patrick[1]

[1]Université de Douala

Les moustiquaires imprégnées d'insecticide à longue durée d'action (MILDA) sont l'une des principales méthodes utilisées pour le contrôle du paludisme au Cameroun. Cependant, la vente de plusieurs marques de MILDA sur les marchés et la réémergence de résistance aux insecticides des populations vectrices posent des défis au programme local de lutte contre le paludisme sur la sélection de produits de contrôle vectoriel adaptés à base d'insecticide. Par conséquent, cette étude a évalué la sensibilité aux insecticides et la bio-efficacité des MILDA sélectionnées contre les populations sauvages d'A. gambiae s.l. de Douala. Leur bio-efficacité a été évaluée par la méthode de tests en cône, premièrement sur la souche sensible de référence Kisumu puis, sur la souche d'A. gambiae s.l. obtenue par élevage des larves collectées par la méthode de dipping. Le profil de sensibilité d'A. gambiae s.l. aux pyréthrinoides (Perméthrine0,75% et Deltaméthrine0,05%) et au DDT4%, a été déterminée par la technique des tests en tube. Trois marques de MILDA ont été achetées : Permanet 3.0®, DAWA Plus® 2.0 et Royal Centry®. Royal Centry a montré la plus grande bio-efficacité indépendamment des espèces de vecteurs testés. La souche d'A. gambiae s.l. a présenté une résistance à tous les insecticides testés (mortalité :DDT(12%); deltaméthrine(75%), perméthrine(60%)). Cette étude a montré que les MILDA vendues à Douala bien de bonne qualité, leur efficacité contre la souche locale d'A. gambiae s.l. était faible, à cause de la forte résistance aux pyréthrinoides observée.

Mots clés : MILDA ; Bio-efficacité ; A. gambiae s.l. ; Douala.

SYMPP13.
EVALUATION DE L'EFFICACITÉ DES MILDA DISTRIBUÉES À EYANG ET BERTOUA DANS LES RÉGIONS DU CENTRE ET DE L'EST

Nanssong Vomo CT[1], Mbida Mbida JA[1], Nsango SE[1].

Malaria poses a major public health problem in Cameroon. Plasmodium falciparum, the most frequent causal agent is responsible for serious clinical forms. The main characteristic of this parasite is its strong allelic polymorphism and its great genetic diversity which can compromise the implementation of effective vaccine and favor the resistance of parasites to antipaladic drugs. The present study aims to determine the prevalence and polymorphism of msp1 and msp2 of Plasmodium falciparum among the populations of the Mintom and Oveng districts, Sud-Cameroon. The sample was rolled out from 30 August to 11 September 2020.The size of the sample was evaluated according to the standard method. The identification of Plasmodium species is made from ADN extracts blood spots amplified by PCR multiplexing and amplification products used to evaluate the polymorphism of genes msp1 (KI, MAD20, RO33) and msp2 (3D7, FC27). A total of 315 samples were genotyped with an important genetic diversity. 12 different alloys of sizes have been identified at locus msp1, soit 03 for K1, 07 for MAD20 and 02 for RO33. As for msp2, 28 different alleles have been identified, with 14 for 3D7 and 14 for FC27. The most common allelic family in the population was FC27 (100%) followed by 3D7 (98.4%). The strong genetic diversity and important allelic polymorphism in P. falciparum isolates indicate a high level of transmission of pallorism and the need to strengthen measures to combat pallorism in these localities.

Keywords: Malaria, Plasmodium falciparum, polymorphism.

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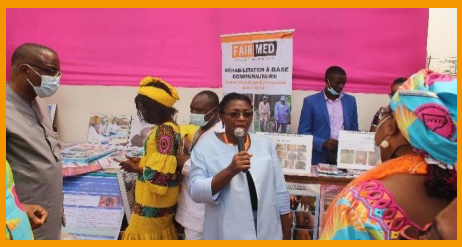

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La 69ème édition de la Journée Mondiale de la lèpre qui s'est célébrée conjointement avec la 3ème édition de la Journée Mondiale des Maladies Tropicales Négligées (MTNs) sous le thème « s'unir pour la dignité » a été l'occasion de sensibiliser le large public sur la lèpre, d'améliorer les attitudes envers les personnes affectées par la lèpre et leur redonner leur dignité perdue.

Cette commémoration a regroupé le ministère de la Santé Publique, FAIRMED et autres acteurs de la société civile tels que Helen Keller Int'l et CERAC, qui œuvrent pour la lutte contre la lèpre et les autres Maladies Tropicales Négligées au Cameroun. A cette occasion les malades, anciens malades de la lèpre et les familles affectées par la lèpre ont été célébrés à l'esplanade du Centre Jamot de Yaoundé le 30 janvier 2022.

En outre, lors de cette même édition de 2022, FAIRMED a mené des campagnes de sensibilisation dans les écoles, églises et communautés situées dans les districts de santé de Bankim et d'Abong-Mbang. Le but de cette action menée de concert avec la communauté nationale et internationale était de donner la bonne information sur la lèpre et de limiter la stigmatisation, la discrimination des personnes affectées par la lèpre.

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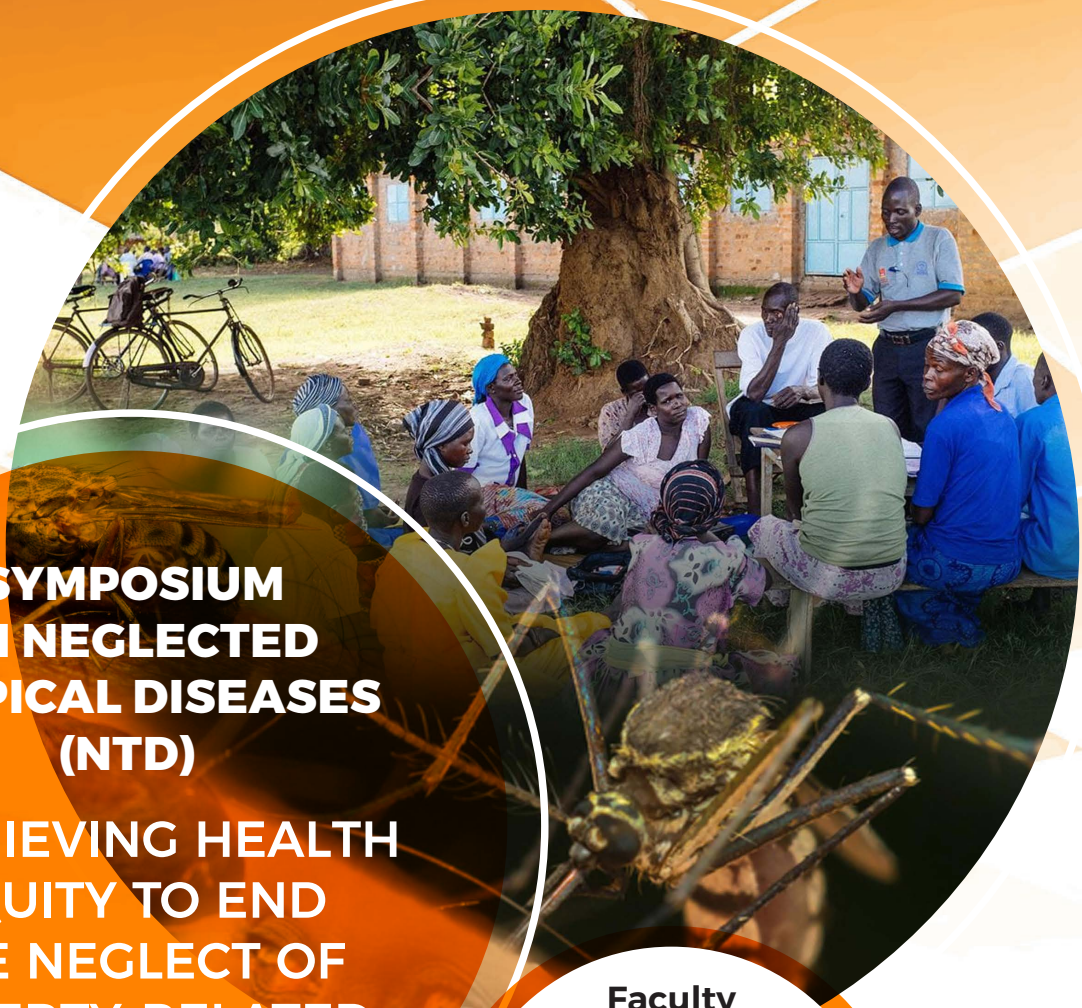

SYMPOSIUM ON NEGLECTED TROPICAL DISEASES (NTD)

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ABSTRACT BOOK

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